NEWSLINE

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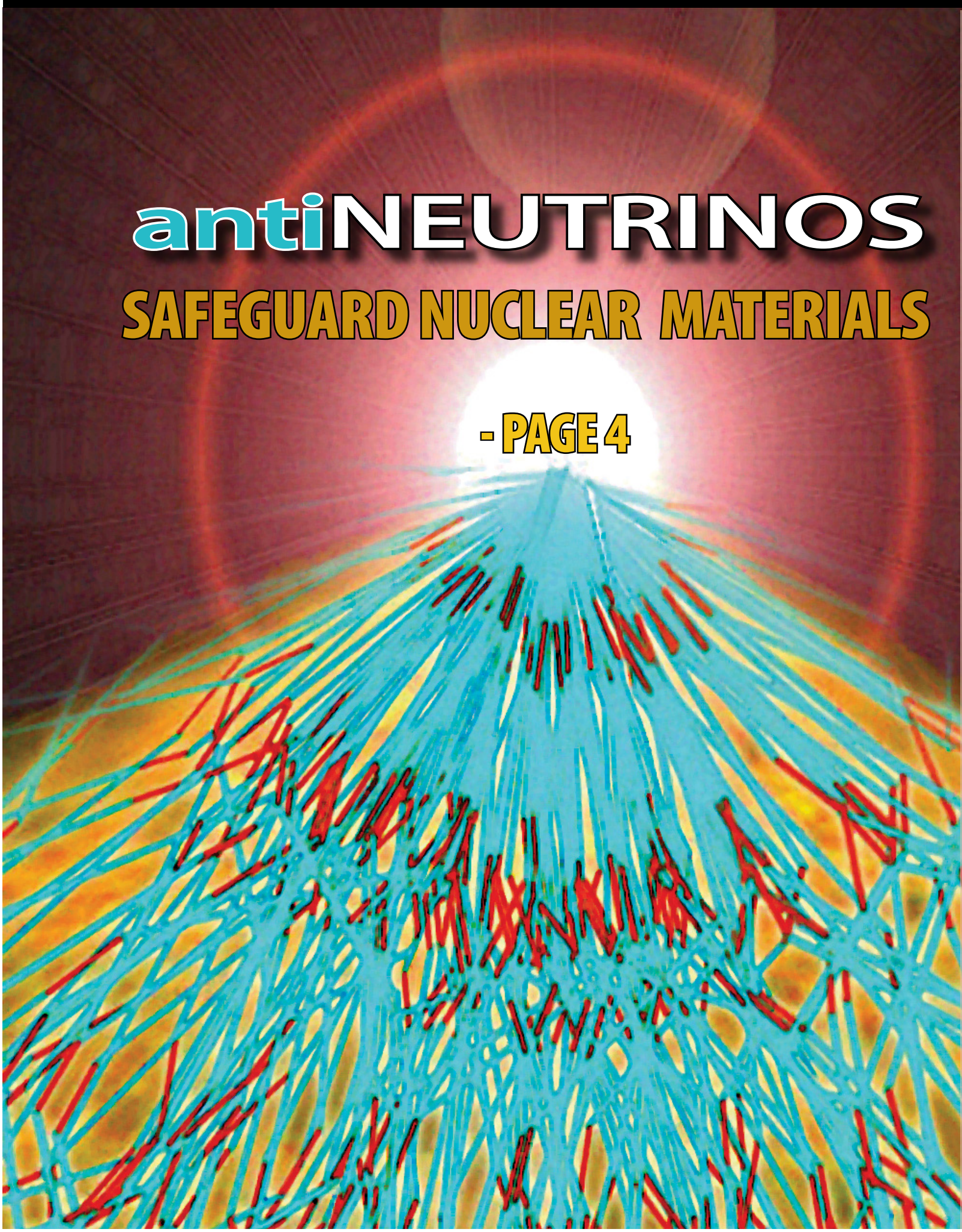

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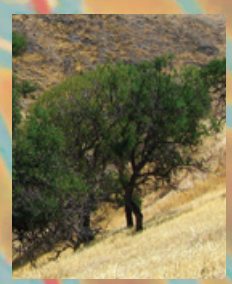


WILDSIDE: MIGHTY OAK'S CALIFORNIA ROOTS PAGE 8

Remarks by Energy Secretary Samuel Bodman on DOE's 30th anniversary Oct. 9

(Editor's note: The US Department of Energy celebrated its 30th anniversary Tuesday. Secretary Bodman spoke in a ceremony attended by dignitaries including the first energy secretary James Schlesinger.)

As we celebrate our 30th anniversary, it's true that we are at least by the standard of Cabinet-level agencies a young department. But the foundation on which this department was built — from the Manhattan Project to the Atomic Energy Commission — has been nothing short of essential to America's greatest achievements of the past 70 years.

Today our responsibilities are diverse and complex, but our mission remains quite simple: we are engaged in a collective effort to advance the energy security, the economic well-being and the national defense of our great nation. And, each day when we come to work to whatever part of this building or across the DOE national complex, I know that we all share a deep appreciation of the great trust that the American people continue to place in us.

Samuel Bodman

From the very beginning, this department has stood for excellence. Excellence in all we do, and in particular, scientific excellence. For maintaining America's world leadership in the sciences is a thread that runs through nearly everything we do. And over these past 30 years, that leadership has produced extraordinary results, enabling advances in fields as diverse as the physical and environmental sciences, the life sciences and medicine, supercomputing and nanotechnology.

Our reach goes beyond the walls of any DOE building or national laboratory. Each year, thousands of researchers from around the world work in partnership with us, and millions of people have benefited from the results. The department's work has led to some of the most important scientific discoveries of the past several decades. As one measure of success, the department has sponsored 45 Nobel Laureates since its inception in 1977 and that total grows to 85 if you include our predecessor agencies as well.

And today we continue to push back the frontiers of science in support of our mission. We are actively planning for the future as well, to make sure that the next generation of cutting-edge facilities are available to our nation's scientists and engineers. To this end, we have just completed and will soon release an update of our 20-year plan for large-scale science facilities.

As you can tell, I'm extremely proud of this department and its history. And so I'm pleased to announce that today the department will take an important step in telling that history. This afternoon, the new lobby visitors center will be open to the public, showcasing some of the most important achievements of this department — or, I should say, of the people of this department.

I'll close by thanking you all for being here today. I thank you for the contributions that you make everyday to this department and have made for these 30 years, and for the positive results that you will continue to achieve for our fellow citizens, our communities, and our world.

University of California Berkeley's Clark Kerr Award goes to Karl Pister

Karl Pister, who has been intimately involved with the Laboratory since its inception, has been named this year's winner of the Clark Kerr Award by the UC Berkeley Academic Senate. The award honors individuals for their "exceptional dedication to the educational process."

"I can think of no one who more richly deserves this award," said Susan Hackwood, president of California Council on Science and Technology Board.

Pister's involvement at the Laboratory started as a student right around the time when the Laboratory opened in 1952. "He is an ardent supporter of the Lab as well as a vocal advocate of improved K-12 education," said LLNL's Engineering Associate Director Steve Patterson. "While Karl is not exactly an employee, many of us do think of him as part of the extended Laboratory family."

Pister is a UC Santa Cruz chancellor emeritus. He has an illustrious record of service to the Berkeley campus and the University. His leadership roles embrace his outstanding tenure as the dean of Engineering, and his chancellorship of UC Santa Cruz. Pister's unwavering commitment to the University is a truly exceptional achievement. For more than 50 years he has given tirelessly to the University to uphold the ideal of shared governance.

Karl Pister

"That leadership, and these accomplishments, well befits the legacy of President Clark Kerr, and the Senate is pleased to honor Professor Pister with this tribute," Hackwood said.

In 1968, the Berkeley Division created the Clark Kerr Award to honor President Emeritus Clark Kerr. The award is presented to an individual considered to have made an extraordinary and distinguished contribution to the advancement of higher education.

Pister is chair of the governing board of the California Council on Science and Technology and is former vice president of UC's Educational Outreach. Prior to retirement, he completed five decades of service to higher education, beginning his career in higher education as assistant professor in the Department of Civil Engineering at UC Berkeley. He served as chairman of the division of Structural Engineering and Structural Mechanics before his appointment as dean of the College of Engineering in 1980, a position he held for 10 years. From 1985 to 1990, he was the first holder of the Roy W. Carlson Chair in Engineering. From 1991-1996, he served as chancellor at UC Santa Cruz.

He received the Wason Medal for Research, awarded by the American Concrete Institute and was the recipient of Distinguished Alumni Awards from both the University of Illinois and the UC Berkeley Colleges of Engineering. The American Society for Engineering Education presented him with the Vincent Bendix Award for Minorities in Engineering, and the Lamme Medal, the highest honor bestowed by the society, for his contributions to engineering education. He also is the recipient of the Berkeley Medal, awarded by UC Berkeley, the UC Presidential Medal and the Year 2000 Presidential Award of the American Society of Mechanical Engineers.

Pister is a member of the National Academy of Engineering and a fellow of the American Academy of Arts and Sciences. He also is a fellow of the American Academy of Mechanics, the American Society of Mechanical Engineers, and the American Association for the Advancement of Science and an honorary fellow of the California Academy of Sciences.

Heathcare rates with new LLNS plans

For those with full-time salary rate of $43,000 or less

Plan	Self	Self & Child(ren)	Self & Adult	Self &Adult & Child(ren)
Blue Cross Plus	75.70	136.28	195.36	256.26
Blue Cross PPO	79.86	143.74	204.38	268.26
Blue Cross Core	0	0	0	0
HealthNet	22.18	39.94	83.28	101.04
Kaiser Permanente-CA	6.44	11.60	13.54	18.70
PacifiCare	19.00	34.20	76.58	91.76

For those with full-time salary rate of $43,001 to $86,000

Plan	Self	Self & Child(ren)	Self & Adult	Self &Adult & Child(ren)
Blue Cross Plus	103.00	185.40	258.34	340.72
Blue Cross PPO	107.18	192.92	267.12	352.84
Blue Cross Core	0	0	0	0
HealthNet	48.98	88.16	144.88	184.06
Kaiser Permanente-CA	33.08	59.56	74.50	100.96
PacifiCare	45.74	82.36	138.12	174.72

For those with full-time salary rate of $86,001 to $129,000

Plan	Self	Self & Child(ren)	Self & Adult	Self & Adult & Child(ren)
Blue Cross Plus	132.52	238.54	317.78	423.78
Blue Cross PPO	136.78	246.22	326.72	436.12
Blue Cross Core	0	0	0	0
HealthNet	77.50	139.50	202.22	264.24
Kaiser Permanente-CA	61.32	110.38	130.54	179.60
PacifiCare	74.22	133.60	195.34	254.70

For those with full-time salary rate more than $129,000

Plan	Self	Self & Child(ren)	Self & Adult	Self &Adult & Child(ren)
Blue Cross Plus	162.70	292.88	378.02	508.18
Blue Cross PPO	167.02	300.62	387.04	520.64
Blue Cross Core	0	0	0	0
HealthNet	107.20	192.94	261.42	347.18
Kaiser Permanente-CA	90.86	163.56	189.08	261.78
PacifiCare	103.88	187.00	254.48	337.58

Medical plan Open Enrollment begins Nov. 1

Open Enrollment, the employee's annual opportunity to transfer to a different medical or dental plan or add eligible family members to current plans, will be held Nov. 1-16.

Next week, employees will begin receiving a brochure outlining the necessary information they need to make any changes during Open Enrollment. The brochure will be sent to home addresses. In addition, a Benefits Fair will be held Tuesday, Nov. 6, 2-5 p.m. in the Central Cafeteria. Representatives from the medical and dental plans will be available to answer questions.

This is the first Open Enrollment for the Laboratory under the management of Lawrence Livermore National Security, LLC. During this period, employees must re-enroll in the Health Care Reimbursement Account and/or the Dependent Care Reimbursement Account. Employees also may change their participation in the Tax Saving on Insurance Premiums.

Some health plans offered in previous years will be discontinued at the end of 2007, due to low enrollment in those plans. The Human Resources Benefits Office has worked hard to provide employees with a variety of benefits options for 2008. For example, PacifiCare will continue to be available.

While there are no changes to coverage within the medical plans, or increases to medical co-payments or deductibles, the cost of health care rates continues to increase in 2008. This rise in costs reflects a growing national trend over the last several years. However, for 2008 the Laboratory will absorb the majority of the increases, resulting in minimal rate changes. For example, an employee with a full-time salary rate of $43,000-$86,000, with Kaiser family coverage, will see a premium increase of $7 over the 2007 rate.

For more information on rates, see the accompanying table.

Employees must make their benefits changes via the LAPIS system located on the Lab portal. Employees who do not have access to a computer should call the Benefits Office for assistance in making changes. All changes will become effective Jan. 1, 2008.

More information on Open Enrollment is available in the brochure or via the Benefits Office Website, at https://benefits-int.llnl.gov/ or by calling 2-9955.

WHAT'S NEW?

Notice regarding the Health Care Spending Account

SHPS has produced new debit cards for those LLNL participants who have now been transferred to the LLNS Health Care Reimbursement Account. Employees should receive the card by mid-October.

The UC debit card, which was previously issued is no longer valid for use, as of Oct. 1.

If you need to submit a claim for any eligible health care expenses prior to receiving your new debit card, you can submit a SHPS claims reimbursement form on the Web at http://www.shps.net/myshps/fsa/downloads/standard_hc_claim.pdf.

For more information about the LLNS Health Care Reimbursement Account program, refer to the Benefits Website at https://benefits.llnl.gov/insurance-flexible-spending-accts.html or call the Benefits Office, 2-9955.

UC 403 (b) loan repayment information

Employees who currently have a loan established in the UC 403(b) plan are allowed up to 90 days to arrange monthly payments on the remaining balance of their loans to avoid having the balance reported as taxable income per IRS requirements.

If you wish to make arrangements for direct monthly payments on your existing 403(b) plan loan, contact Fidelity at 1-866-682-7787.

New 401(k) retirement and savings plans signups continue

The 401(k) plans are being offered through Fidelity as part of the total compensation plans available under Lawrence Livermore National Security, LLC (LLNS).

Employees may sign up online at http://www.mysavingsatwork.com/atwork.htm or by calling 1-800-343-0860. Phone service is available Monday through Friday, 5 a.m.-9 p.m.

Exempt or salaried employees must sign up by 1 p.m. Pacific time today (Oct.12) to have deductions taken from their first check. Those employees who do not wish to have deductions taken from their first LLNS paycheck may enroll in the 401(k) plans at any time.

SCIENCE NEWS

Detecting antineutrinos for nonproliferation

By Nancy Garcia
Newsline staff writer

Antineutrinos were first suspected long before they were spotted near nuclear reactor cores in the mid-1950s. Now, thanks to a Lawrence Livermore and Sandia national laboratories research project, their faint signal may help to safeguard fissionable reactor material, monitoring treaty compliance in an unobtrusive, continuous and independently verifiable manner.

Two demonstration devices were shipped at the end of August to the San Onofre Nuclear Generating Station in Southern California, where they will be tested by operating through a reactor shut-down in three months' time. A sudden drop in detection of these fleeting subatomic particles, caused by the shut down, should confirm these detectors' promise to track the state of reactor operations in real time, thereby helping to ensure that excess plutonium is not being created or diverted.

The demonstration detectors are intended to improve upon a successful demonstration of the basic concept shown in a prototype that has been operating at the San Onofre site since 2003. Like all the fielded devices, the first detector was built to track the steady release of antineutrinos during controlled fission within the reactor's radioactive core. A steep drop-off in signal during a scheduled maintenance shutdown confirmed the original detector's performance.

"The December outage will be our moment of truth for the latest detectors," predicted project leader Adam Bernstein, an applied physicist who heads the Lab's Advanced Detectors Group. "We've had success in demonstrating that you can track the operational status and plutonium content of reactors using antineutrino detectors. Now we've turned our efforts toward devising a more easily manufacturable device."

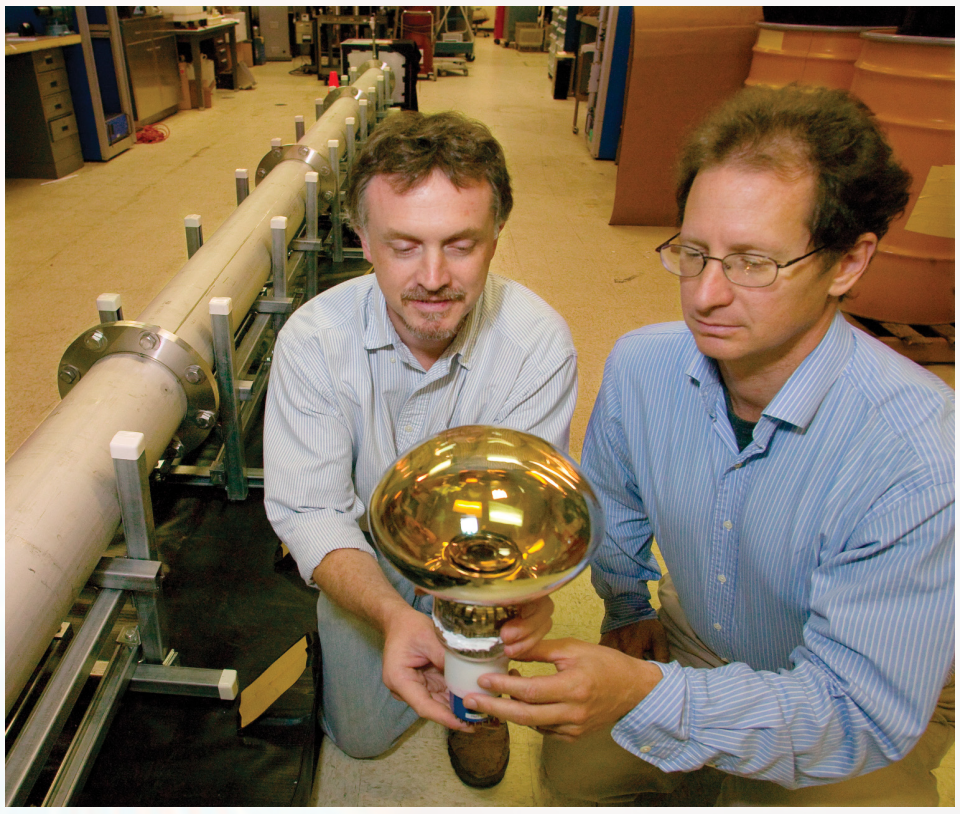
They are exploring a possibly smaller unit and the use of more benign scintillation material. The original device's scintillation fluid is toxic, carcinogenic and flammable. Also, the original detector's shielding made the overall device bulky at about nine feet per side. There is room, between the reactor's containment dome and outer wall for the demonstration detectors to be out of the way of day-to-day operations in a seldom-accessed subterranean area called the tendon gallery. Still, more compact final designs would be easier to deploy and more acceptable at the hundreds of reactors around the world.

The project's overarching goal is to provide an option for treaty verification by the International Atomic Energy Agency, the U. N. body that oversees civilian reactor operations to ensure governments are not operating clandestine weapons programs.

An automated, continuous monitor provides a remote way of identifying what fissile materials are present without having to stop operations or sample the reactor core. Present methods also rely heavily on indirect means such as video surveillance and operational logs. By watching reactor operations, the detection scheme would serve as a deterrent to the creation of excess plutonium or diversion of nuclear material. Also, measurements taken during reactor operations provide an independent baseline for comparison with measurements made later, when discharged fuel is reprocessed.

"The antineutrino monitor provides the earliest possible estimate of fissile content, starting from the moment the plutonium is born in the core, "Bernstein said. "It's attractive

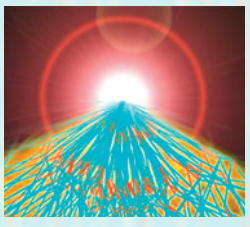
See **REACTOR,** page 5



JACQUELINE MCBRIDE/NEWSLINE

Adam Bernstein and Steve Dazeley examine one of the 8-inch diameter photomultiplier tubes that are used to collect light generated by antineutrino interactions in both the water and scintillator detectors. The 30-foot-long, water-filled, stainless steel tube on the left is a UV laser-based system that measures the clarity of the gadolinium-doped water under a range of conditions.

Nature of particles leads to new applictions



LAWRENCE BERKELEY LAB

On the cover: If neutrinos and antineutrinos are the same particle, when an ordinary neutrino (blue) collides with a Higgs boson, it transforms into a short-lived, very massive antineutrino (red), which soon converts back to an ordinary neutrino. This so-called seesaw mechanism may mean that neutrinos and antineutrinos are the ultimate source of all matter in the universe.

Antineutrinos were initially imagined by Wolfgang Pauli in 1930 to account for the energy balance of radioactive beta decay, in which an electron is emitted when a neutron decays, turning into a proton.

The particles were first detected in 1956 in experiments near U.S. unclear reactors by Frederick Reines, who won the Nobel Prize in physics in 1995 for his work. The feat was challenging because antineutrinos, while produced in abundance by reactors, have no measurable mass and no charge. They interact so rarely, in fact, that more than 50 trillion pass through each person per second, and then zip along through Earth, traveling at almost the speed of light.

Their behavior is so well understood now that they can be readily identified by their distinctive bursts of energy, which can be recorded in detectors. Up until now, detection devices have been used solely for research rather than being dedicated to material safeguarding.

Devices to detect antineutrinos often make use of materials rich in loosely bound protons. Antineutrinos interact with relatively high probability (by the standards of antineutrinos) with these protons, producing a positron and a neutron in the process.

Since positrons and neutrons are relatively unusual particles, and since finding a pair near a single point in space and time also is relatively rare, the antineutrino signature can be picked out with relative ease.

This unique signature forms the basis of all the monitoring systems being tested at the San Onofre Nuclear Generating Station in Southern California. The effort is being undertaken by a joint collaboration involving Lawrence Livermore and Sandia national laboratories and Oregon State University.

SCIENCE NEWS

Keyes' high-peformance computing contributions honored

David Keyes of the Computation Directorate's Institute for Scientific Computing Research has been named the recipient of the 2007 Sidney Fernbach Memorial Award.

David Keyes

The award honors innovative uses of high-performance computing in problem-solving and was established in 1992 in memory of Laboratory computer scientist Sidney Fernbach, a pioneer in the development and application of high-performance computers to the solution of large computational problems. Award recipients receive a certificate, and a $2,000 cash prize.

"Dr. Keyes is well deserving of this prestigious award. He has made major advances in both the theory and application of scalable numerical algorithms, and in so doing, has enabled the simulation of many important physical phenomena," said Steven Ashby, LLNL deputy principal associate director for Science and Technology and Supercomputing 2007 (SC07) awards chair. "Keyes is proof that Fernbach's spirit is alive and well."

Keyes is world-renowned for contributions to "Newton-Krylov-Schwarz" methods for the efficient solution of nonlinear partial differential equations (PDE) on high-performance computers. These methods are at the heart of many applications, including aerodynamics, radiation transport, acoustics and magnetohydrodynamics. They have been incorporated into open mathematical software libraries that have enabled hundreds of users to make efficient use of parallel computers, from small clusters to the world's largest computers. He also has played a major role in the high-performance computing community through his professional service and leadership of the DOE Scientific Discovery through Advanced Computing (SciDAC) program's Terascale Optimal PDE Simulation Center.

This award is given by the Institute of Electrical and Electronics Engineers (IEEE) Computer Society for innovative uses of high-performance computing in problem-solving. The award will be presented at SC07, the international conference for high performance computing, networking, storage and analysis held Nov. 10-16 in Reno, Nev. Keyes will give a plenary lecture on Nov. 14 at 2:15 p.m. as part of a special awards session.

Keyes also is the Fu Foundation professor of Applied Physics and Applied Mathematics at Columbia University. He is being recognized for his outstanding contributions to the development of scalable numerical algorithms for the solution of nonlinear partial differential equations and exceptional leadership in high-performance computation.

Keyes also writes music and composed an unofficial anthem for the Laboratory entitled "The Pride of the Tri-Valley."

REACTOR, from page 4

overall because it offers direct monitoring in real time, plus it's non-intrusive and requires neither access to the core nor removal of the reactor fuel."

Its accuracy was recently validated by Oregon State University graduate student Alex Misner, who is pursuing a Ph.D. in nuclear engineering. He learned about the project in a presentation by Bernstein at a two-week course on analytical methods for nuclear non-proliferation and national security. The course was hosted at the Laboratory by the Radiation Detection Center and sponsored by the Western Nuclear Science Alliance. Misner, looking for a thesis topic, offered to model, with high-fidelity, the reactor fuel cycle. In it, uranium-rich fuel gradually develops ingrowths of plutonium as isotope content shifts during the approximately 18 months that fuel rods slowly fission and heat water to drive turbines. The spectral qualities of uranium and plutonium differ, providing a key to the types and amounts of the different fissile materials in the core. Plutonium creates relatively fewer antineutrinos during radioactive decay, so the overall rate of antineutrino detection gradually declines during the cycle.

Joining the project, Misner became a Glenn T. Seaborg Institute fellow and was trained on the Oak Ridge National Laboratory modeling software package known as ORIGEN. He has been applying the code to a variety of reactor designs to predict the slope of antineutrino decline as uranium decays and plutonium forms. Misner said the pre-existing software packages have been primarily used to characterize spent fuel.

"As far as I know," he remarked toward the end of his summer internship, "we're the only currently deployed neutrino project that is focused on nonproliferation." A sidelight of his internship was the ability to meet others in his intended field. He's interested in determining capabilities of an adversary for nuclear proliferation rather than learning to run a power utility. Having first visited a reactor as a child on a school field trip, Misner added, "I've always been interested in nuclear energy."

Even for those who have never entered a reactor are familiar with photographs showing the eerie blue glow around the rods in the cooling pool.

This effect, Cerenkov light, is created when charged particles move more quickly than light through a medium, forming a shock wave that glows blue and ultraviolet. It is the basis of one of the new trial detection schemes being tested now, which Bernstein calls challenging but potentially rewarding. The signal is feeble and may be hard to catch because photomultiplier tubes see blue light better than the strong ultraviolet component, but the system is less sensitive to background radiation, which may minimize the need for bulky shielding.

In this detector, some incoming antineutrinos will strike the water's hydrogen atoms, which act as positively charged protons. The collision converts them to neutrons, causing them to eject a positron in the process.

For creating a signal, a small amount of the element gadolinium has been added to the water. The gadolinium captures the neutron and releases a shower of gamma rays, which in turn generates fast electrons that emit measurable Cerenkov light. In addition, the positron, which also travels faster than the speed of light in the medium, creates a second flash of Cerenkov light. Together, these nearly simultaneous flashes form the signature of the antineutrino.

The smaller footprint of this water-based detection system would be a real advantage, Bernstein said.

Both systems being fielded now replace the original scintillation fluid with more benign material.

The other scheme uses slabs of plastic to detect the antineutrinos. The neutron capture agent, gadolinium, would turn the plastic cloudy and obscure the signal. To circumvent that, the gadolinium is mixed in paint applied to sheets of Mylar, sandwiched between the plastic slabs. Antineutrinos that strike protons in the plastic create a position and neutron. The positron creates a flash of light directly in the plastic, with a wavelength that is more blue than ultraviolet, and hence, easy to detect. The neutrons travel into the Mylar to be captured by the gadolinium. That interaction releases a shower of gamma rays that induces scintillation in the plastic. Both flashes are detected by rows of photomultiplier tubes facing the plastic.

To screen out the cosmic ray muons which can induce signals similar to an antineutrino, the plastic sandwich device sports a newly designed roll-away muon rejection system made of an inch-thick plastic scintillator. Through a long-standing relationship that was recently resumed at the Laboratory, the component was devised by students at Harvey Mudd College, as part of an engineering clinic.

"They just basically did a great job," Bernstein said. "It was a really meaningful undergraduate interaction, educational for them and directly relevant and useful to us and our program." The year of shield development was funded by the Nonproliferation, Homeland and International Security and Physics and Applied Technologies directorates. The overall work is supported by the National Nuclear Security Administration.

Researchers include Nathaniel Bowden and Steve Dazeley of the Advanced Detectors Group, and UC Davis professor and LLNL physicist Robert Svoboda. Sandia personnel working on the project include principal investigator David Reyna, and physicists Jim Lund, Georg Aigeldinger and Jim Brennan.

i.want ads

Due to the high quantity of ads and space limitations, these want ads have been abbreviated. For the complete ad listings, refer to the internal Website: http://www-r.llnl.gov/pao/news/ wantads.html or for the latest pdf download and retiree information, see the external Website: http://www.llnl.gov/pao/employee/. Please note that these ads appear on the Web.
Date of ads: Approx. Oct. 2 to Oct. 9. Ads appear on the Web for seven days.

Automobiles

1957 Chevy BelAir. $20,000 OBO. Red custom paint, near show quality, 4 dr., 3 SPD, 530-238-8676

1964 Cadillac Sedan Deville. $4,800. 4 dr. auto/4 door, good condition, Eng 429 V8, 925-449-8020

1987 Honda CRX Si. $1,600. 188k miles. New struts, muffler, rotors and brake pads, 925-200-0849

1998 Jeep Wrangler Sport. $10,000 OBO. 4.0 L straight 6 automatic trans. 4WD, 925-373-3418

2002 VW Jetta 1.8 Turbo GLS. $10,499 OBO. Excellent condition, pristine, Navy blue, 510-219-5846

2002 Yukon XL. $13,000 OBO. 99k miles. Reg. maintained and all records available. 925-783-0473

2003 Mercedes CLK-320 coupe. $26,000. V6, one owner, 44K miles, pewter/ash leather 925-447-8116

2004 Ford Taurus. $8,000 or BO. Has V6, automatic transmission, A/C, power windows, 925-294-9651

2004 Kia Sedona Ex: Only 22k miles. $14,500. White w/gold trim, moonroof, 209-578-6773

BMW 330i. $18,000. 2002, 98,000 fry mi. 4-door sedan, vry clean, leather int. 209-892-8443

Wheels. $20. 13-inch tires on rims. 925-735-6002

Boats

2003 Sanger DLX. $18,500. Loaded, factory ballast system, 315 hp mercruiser. 209-271-4643

Clipper marine sailboat w/trailer. $2,800. Sleeps 5, good condition, new bottom, rigging, 209-679-3044

Boat motor. $300 OBO. Evinrude 35 HP. Outboard with gas can, elec. Start key, throttle cables, 925-516-2570

Rave Sports Blade tube for boating, $30. 925-648-0671

Electronic Equipment

25″ RCA color television. $25. Several years old, but works fine. 925-443-1279

C band dish antenna & equipment. $150. Weingard 10 foot aluminum mesh C band dish, 925-447-2224

53″ Hitachi projection TV. $494. W/HD resolution, 925-422-9194

Nikon green laser pointer. $100. High quality, bright beam. 925-455-4484

Giveaway

Apple 15″ studio display, M2454, keyboard and mouse, 925-443-1279

Twin bed. Select-comfort twin bed with frame. Slow leak. 925-933-0217

Household

Antique dining room table w/6 chairs. $650. One captain chair. 925-321-1265

Antique drop leaf dinning table. $100. Spindle legs. Seats 4, oval shape. Great shape. 925-570-0822

Antique gas stove. $150. O'Keeffe & Merritt gas stove, works great with Grillovator. 925-813-2597

Art. $75. Floral print. (4-inch frame/glass) orginally from Bombay company. 925-570-0822

Beautiful solid wood ladder shelves, 925-640-5469

Chair. Best offer, close to LLNL. 248-752-7831

Children's desk. $ 75. Antique child's rolltop desk. 925-447-3432

China cabinet. $300. Upper section is lit with glass doors. Bottom also has glass doors. 925-447-1954

Computer desk. $75. Metal and black glass computer desk. 925-640-5469

Desk. $70. Good condition, big and heavy maple wood look. Located in Danville, you p/u. 925-964-0534

Double solid oak platform bed frame. $50. Good condition. I could deliver. 408-293-6369

File drawers. $35. Two-drawer metal and glass rolling drawers with seat cushion top, 925-640-5469

Large, off-white with gold trim Lane bedroom dresser. $100. 6'long x 3'wide; 7 drawers. 209-847-1986

Furniture. $800/obo. Computer desk, printer stand, file/cabinet, hutch, rolling file, bookcase. Cherry finish. 925-735-1841

Holmes twin window fan. $25. With digital control, sets and precise temp. 925-648-0671

$160: 2 twin beds, solid oak w/ brand new mattress and frame; $40: dresser, like new; $10: TV wall mount stand. 925-513-1786

Love seats. Matching pair, light blue, love seats excellent condition, $75 ea, $125 both OBO 925-455-8321

Matching dressers, night stands. Close to LLNL, 248-752-7831

Oak furniture. $225: TV cabinet with glass doors, side storage for stereo equipment. $175: 2 ea oak 48-in. round kitchen tables with four chairs, 925-454-1749

Refrigerator. $150. Sanyo counter high refrigerator, stainless steel doors, 925-485-1988

Sofabed. $100. Nice blue, full size sofabed. Call after 5 p.m. 925-455-6886

Solid wood cabinet. $55. Two pieces, sits one on top of the other. 2 shelves. 925-640-5469

Teak veneer bookcase. $60. Has a little booboo on backside, but good cond. 925-640-5469

Tempur-Pedic Sleep System bed. Best offer. Full-size mattress. 248-752-7831

Towel rack/tower. $20. Metal shelves for towels or whatever, 4 bars to hang towels. 925-640-5469

Twin bed matresses w/ head and foot board white. $150 excellent condition, 925-443-5008

Writing desk. Best offer. 248-752-7831

Lost and Found

Book, "The Islamic Bomb." Found in Bldg. 121. 3-2383

Watch found in women's restroom in Bldg. 151. 2-8151 to claim.

Miscellaneous

Cox Stuka gas powered plane. $500. Made in the '60s. 209-346-0736

2 unlimited ride tickets: Santa Cruz Beach Boardwalk. 925-783-0473

Air circulator fan. $30. Patton brand, high-velocity, industrial construction, 925-648-0671

Christmas decor. 925-640-5469

Garage sale. Multi-family garage sale on Saturday, Oct. 13, from 8 a.m. to 1 p.m., 2482 Decker Lane, Livermore, 925-960-1081

Glass fixtures for ceiling fan lights. $40. 925-964-0534

Gray SUV bench seat upholstery cover. $20. 925-783-0473

Halloween costume. $5. This stewardess costume is new in the package. Size 10. 925-640-5469

Halloween costumes. $18 each. Disney's Winnie the Pooh and Piglet, 6-12 months. 925-989-8059

Raider tickets (2) for Oct. 21. $60. Vs. Kansas City Chiefs. 925-648-0671

Rice paper roll-up shade. $8. Beige, 30″ W x 73″ L. 925-640-5469

Certificate for two-night stay on Friday and Saturday at Sheraton Hotel in Pleasanton. $125. 925-648-0671

Spiderman giant inflatable pool. $25. 925-648-0671

Tractor. $3,000. Fergeson 203, 4cyl diesel, bucket, gannon scraper, newer rear tires, 925-454-1749

Motorcycles

2004 Yamaha R6 Limited Edition. $6,000. Excellent condition, 1480 miles, 925-337-3633

Custom Harley Softail Deuce. $13,900. 2001 fxstd with only 8,000 miles, 209-271-4643

Honda. 175cc (?); rebuilt from parts; electrical system incomplete; never run; 925-443-3511

Musical Instruments

Flute. $300. Gemeinhardt. In good condition. 925-449-1169

Pets

Complete rabbit set-up. Free. Two Netherland Dwarfs. Rabbit food and three-rabbit hutch. 209-836-4349

Free dog. Chester is a 10-month-old Catahoula Leopard Lab mix. 925-337-1836

Free playful kittens. Tabby & white. 209-304-3775

Kittens. Adorable, 8 - 12 week old kittens, through Tri-Valley Animal Rescue. 925-961-0260

Recreation Equipment

Ab mouse exerciser. $10. 925-640-5469

BowFlex XTL. $850. Excellent condition. Includes leg attachment. 925-447-1954

Oldie treadmill. $30. 925-640-5469

Ridesharing

Vanpool. Modesto/Ripon 14 passenger vanpool. 209-544-6411

Vanpool from San Mateo. 3-9657 or 650-952-6186

Shared Housing

Room available in Danville. $700. Townhome off Crow Canyon Blvd. Prefer postdoc. 925-528-9497

Room for rent. $650. Furnished room, large home with pool, 5 min. walk to the Westgate entrance. Female, non-smoker. 925-449-8806

Room for rent. $500. Livermore, includes two bedrooms and private bath (entire upstairs), utilities included, 925-449-5454

Room for rent, Tracy. $600. Private bath, full access to kitchen, laundry, family room, house is 2,900 sq ft, 209-815-6962

Huge bedroom for rent in Modesto. $500. Non-Smoker, Female only. 209-247-9956

Trailers

Trailer. $4,950. 23 ft, 1986 Fireball 5th wheel trailer, well maintained, new tires, 925-980-2381

Trucks

2006 Chevy Silverado: 3/4ton;crew cab;short bed;8.11 gas engine; 4-wheel drive, 925-634-5851

Jeep Comanche Pioneer. $1,000. '87. New tires and brakes, camper shell, runs great. 209-679-3044

2005 Jeep Wrangler. $20,500. Very clean, only 8,000 miles. Lift kit and 33 in. tires. 925-454-8855

GMC Z71 ex cab. $16,000. 2002 4X4. Very nice, loaded and clean. 209-832-5462

Vacation Rentals

Arnold mountain house. Great 4 bdrm, 3 bath mountain house with large game room, reasonable. Booking winter dates. 925-245-1114

Heavenly at Tahoe ski vacation. 2 bedroom/2 bath condo, Dec. 15-22. 925-299-0451

Kona Hawaii vacation rental home. Big, secluded, fully-furnished home on Kona Coast, 415-377-5361

Maui, HI. Kahana Reef oceanfront 1BR/1BA condominium. 925-449- 0761

Santa Cruz cottage. Santa Cruz beach cottage, 2 bdrm, 2 bath nicely furnished, spa, 925-245-1114

South Lake Tahoe chalet. 3 bedroom, 2 bath, nicely furnished, newly remodeled kitchen, 209-599-4644

Tahoe Donner ski cabin. $700 Long-term ski cabin group has openings for 07-08 ski season. 925-447-0596

Tahoe rental. $ 200/wknd. Soda Springs/Donner summit, classic A frame, 2br/1ba+loft, 209-836-3481

Tahoe vacation rental near Homewood. $125-$175/N, 3b/2b in Tahoma, near Squaw Valley. 925-813-2597

Wine country rental. $150/night. Monte Rio in the heart of the Russian River Valley, 925-513-4767

Wanted

Brio train parts for orhanage in Uganda. 925-447-8544

Deep sink. Used, raised, deep sink. Resonable price, 209-402-5339

Tenor saxophone needed. Aspiring high school jazz student needs a good tenor sax for Granada High School jazz band. Is there a second life for your instrument? 925-243-1398

Vacuum pump that can pull up to 20″ hg. for small scale composite fabrication. 925-600-1817

Looking for a small microwave oven in good condition for a teacher in her classroom. 925-513-4767

RETIREES' CORNER

Grace Caluwe wrote that she enjoyed her years in Personnel. Her husband, Frank Caluwe, who died in 1973, started the Lab's apprenticeship program. She has traveled to Canada, within the United States and Europe. She has gone by rail and stayed in many Bed and Breakfasts in England and Scotland. She enjoys hearing about people that she worked with, like Nort and Linda Croft and others. She sees Hank McDonald walking the Iron Horse Trail in Danville.

Marian and David Holten volunteer in the Reno/Sparks area to give back to the community. Marian serves the Washoe County Family Court system as a court-appointed special advocate for elders under the jurisdiction of guardianships. She advocates what is in the best interests for their optimum physical, mental and financial welfare. David works two five-hour shifts per week at the Renown Medical Center discharging patients, transferring files, delivering flowers, etc. They are touring Rome and cruised the Greek Isles in September. (See Web page for unedited version).

Ron Carr (Mechanical Engineering) and his wife Donna drove to St. George, Utah, this summer for two weeks of golfing, then visited the Grand Canyon and Tucson, where they played golf and had dinner with Ernie Dragon (Mechanical Engineering) and his wife Joanie, who live in a beautiful senior development and are members of three country clubs. Ron and Donna have an upcoming two-month trip to Europe, and then board a cruise ship to San Juan, Puerto Rico with many stops on the way. (See Web page for unedited version).

The October retiree luncheon will be held Wednesday, Oct.17, at the Elks Lodge in Livermore. Stuart Profitt will speak about the history of Franklin Delano Roosevelt's presidential yacht, the USS Potomac.

PEOPLE NEWS

Margy O'Dell is looking for people to present shows for the travel group. She needs some younger retirees who are busily traveling the world. Contact her at 925-449-7262 or via e-mail: mardon4308@comcast.net

New chairperson needed: Jeff Garberson, Retirees Association chair for three years, has announced that this is his final year. For the Retirees Association to continue in 2008, we need a new leader. Time is short to finalize plans for the coming year. Contact Jeff at: (925) 443-4297, if you

Change in retiree badging procedures

As part of the on-going review of LLNL site access procedures, there will be a change in the process regarding LLNL retirees accessing the site. As of Oct. 1, the self-requested, one-day retiree access badge is no longer available.

Consistent with standard site access procedures, access will be allowed for official business purposes and will require authorization by the requesting LLNL organization via the LLNL LL6376, "Badge Request" form.

This change in process should still allow the Lab to meet the needs of LLNL retirees.

Questions about this change should be directed to Edwin Tippens, acting Personnel Security Division leader, via e-mail at tippens1@llnl.gov or 925-423-7177.

Lab's 2007 HOME Campaign set to kick off "a new era of giving"

This year's Helping Others More Effectively (HOME) Campaign is sponsored by the National Ignition Facility (NIF), with Dustin Riggs serving as the HOME Campaign chair.

The Run for Home is sponsored by the Science and Technology Principal Associate Directorate (PAD), with Shelia Williams leading the effort for the Run for HOME and Agency Fair kick-off event that will take place at noon on Halloween — Wednesday, Oct. 31.

The race will start on West Perimeter Drive just outside parking area Z-3 near Bldg. 132. The Site 300 race will take place on the 3,000-meter course. If you have questions about the Run for Home, contact Williams at 4-4108.

Canned food drive

The HOME Campaign is coordinating a canned food drive from Oct. 15-31, to benefit the Second Harvest Food Bank of San Joaquin. Donations of any nonperishable food item can be made.

The Second Harvest Food Bank, whose mission is to break the cycle of hunger, is committed to providing an efficient, cost-effective centralized system for collecting and distributing food in a way that reduces waste and alleviates hunger in the San Joaquin Valley. The charity is seeking to provide meals to those in need and to silence the pain that hunger brings.

Collection boxes will be located in the Bldg. 482 lobby, the Central Cafeteria and West Cafeteria. Donations also may be dropped off with the HOME Campaign Organizational Team Leads. Collection boxes will be available at the starting line on the day of the HOME Run.

Behind the scenes tours of Livermore's Performing Arts Center

The HOME Campaign is offering a chance for employees to get a glimpse of the Livermore Valley Performing Arts Center with a full tour of the new facility taking place on Oct. 18 at noon, 1 p.m. or 2 p.m. This could be your only chance to see what the Performing Arts Center looks like from behind the curtain.

If you are interested in performing arts or are thinking of supporting a performing arts agency during this year's HOME Campaign, sign up for one of the tours; contact Dawn Stone at 3-8925 or stone44@lnl.gov.

Operation: SAM

Operation: SAM, "Supporting All Military," needs goodies for holiday boxes and holiday cards and letters that will be sent to our troops. The group will sponsor the annual holiday drive on the following Saturdays:

- Oct. 13, 10 a.m. to 5 p.m. at the Livermore Wal-Mart, 2700 Las Positas Road.
- Oct. 20, 10 a.m. to 5 p.m. at the Pleasanton Wal-Mart, 4501 Rosewood Drive.

Drop-off donations and letters will also be accepted at these two events. Operation S.A.M. also accepts donations through the HOME Campaign. For information, contact Rob Hoffman at 4-6411 or hoffman21@llnl.gov.

NEWSLINE

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Majestic oak has deep roots throughout Valley

LLNL's wild side

By Jim Woollett

Blue oaks are a specific (white oak) tree species found at Site 300 and in the Livermore Valley.

The majestic oak tree is an ancient symbol recognized by many cultures. The Celts, the Nordic and Germanic tribes, and the ancient Greeks, to name a few, all revered the oak tree for its physical qualities of strength, size and longevity.

California is fortunate to have many examples of this time-honored symbol. Nineteen native oak trees occur statewide and grow in a wide variety of sizes, shapes and landscapes. Two distinct groups are identified within the state: the white oaks with a light-colored wood and rounded (lobed) leaf pattern and red oak species with reddish-brown wood and bristled leaves. Areas with more than 10 percent oak canopy cover are considered oak woodland regions. More than four-fifths of California's oak woodland habitats are privately owned forests.

Blue oaks (*Quercus douglasii)* are a specific (white oak) tree species representative of the hot inland foothills of the coast ranges and the Sierra Nevada and also can be observed at Site 300 and around the Livermore Valley. This tree is typically the most visible oak tree in this area, but few people know its fascinating life story. Blue oak woodlands are present in the western foothills of the Sierra Nevada, the Tehachapi mountains, and in the eastern foothills of the coast ranges. The distribution of this species forms a narrow, nearly continuous ring around the Central Valley.

Life as an oak

Blue oaks are aptly named for the distinct bluish tint of their leaves. This leaf color relates directly to a protective, waxy covering that reflects the most damaging rays of the sun. These trees have an unusual tolerance that allows them to survive severe drought by, for example, shedding leaves if conditions become extremely dry. The density of blue oaks on hillsides has been directly linked to water availability or stress.

Blue oaks are considered a long-lived and slow-growing tree species. Old growth blue oaks in the coast range and Livermore Valley are between 100- to 400-years-old. Blue oak stands can be considered one of the most extensive old-growth forest types left in California. Studies within the past 50 years have noted that blue oak saplings are largely absent in current woodland habitats. Theories abound as to why so few young trees are surviving. Unfortunately, few answers are forthcoming and the larger question now is whether future conditions will allow for the persistence of blue oak woodlands.

Trees normally grow to 25 meters (82 feet) in height during their lifespan. The largest tree found in Alameda County measures a massive 28.7 meters (94 feet) in height with a crown of 14.6 meters (48 feet). The understory vegetation common to blue oak woodlands is composed primarily of annual grassland.

Biological setting

Oak woodlands play a critical role in determining the presence of native species of plants and animals and their distribution. For instance, more than 2,000 plants, 5,000 insects, 80 amphibians and reptiles, 160 birds, and 80 mammals occupy oak woodland areas. These oak communities and their extensive root systems also serve to protect water quality by preventing soil erosion and the effects of stream sedimentation. Acorns provide an abundant fall food source for many species of wildlife and tree cavities serve as shelter and nest sites for others.

Sudden Oak Death (*Phytophthora ramorum*) is a recent disease of unknown origin that has been detrimental to oak species in the state. Researchers suspect it originated in Asia and entered the United States on plants imported for horticultural use. Sudden Oak Death is now established in 14 counties in California and more than 40 species of trees, shrubs and herbs are susceptible to the disease. More than one million trees in California have died in the last decade and millions are believed to be at risk along the Pacific Coast.

Protection efforts

Oak woodlands are now a regulated arboreal resource within many local jurisdictions of California. State, county and city governments have passed laws and ordinances that require adequate protection of woodland areas and promote long-term stewardship of these areas through such actions as conservation easements, oak plantings and designation of "heritage trees."

Today, the single greatest threat to oak woodlands results from human-driven residential, industrial and commercial development. Woodland conversion as a result of agricultural practices like orchard planting and vineyard development also contributes to regional losses.

An Old World belief suggests that by catching a falling oak leaf, a person can avoid sickness the entire winter. A good reason to find your closest blue oak tree, don't you think?

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